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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,112	08/15/2006	Gary Raymond Bowman	08291-747US1 11344P5 USw/	9527

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EXAMINER	
LEA, CHRISTOPHER RAYMOND	
ART UNIT	PAPER NUMBER
1619	

NOTIFICATION DATE	DELIVERY MODE
03/04/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	10/587,112	BOWMAN ET AL.	
	Examiner	Art Unit	
	Christopher R. Lea	1619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 December 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *64-113* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *64-113* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This application is a 371 (national stage application) of PCT/GB05/00024.

Receipt of Amendments/Remarks filed on December 10, 2009, is acknowledged. In response to Non-final office action dated December 31, 2008, applicant amended claims 72, 73, 86, & 87 and added no new claims. Claims 64-113 are pending. Claims 64-113 are under examination.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. Any new rejections applied have been necessitated by applicant's amendment to the claims. They constitute the complete set presently being applied to the instant application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 64-113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liers et al. (Medical and Veterinary Entomology, vol. 15, p299-303, cited by applicants on IDS) in view of the Petterino et al. (Veterinary and Human Toxicology, volume 43 issue 6, p353-360) and Jeannin et al. (US Patent 6,162,820).

Applicant claims

Applicant claims a rodenticidal composition comprising fipronil, a second generation rodenticide, and a feeding stimulant. Applicant also claims methods of using such a composition to kill fleas, ticks and their host rodents.

Determination of the scope and content of the prior art (MPEP 2141.01)

Liers et al. teach, as a whole, a composition containing fipronil, bromadiolone (a second generation rodenticide) and a feeding stimulant as well as methods of controlling fleas and the rats they inhabit.

Claims 64, 69-73, 76, 83-87: Liers et al. teach bait comprising fipronil, bromadiolone (a rodenticide) and crushed wheat (a cereal grain and feeding stimulant) (Materials and Methods section, especially page 300, first full paragraph).

Claims 65-68, 77-82, 90-91: Liers et al. teach fipronil concentrations of 0.0005 and 0.005% and a rodenticide concentration of 0.005% with the remainder being feeding stimulant (Materials and Methods section, especially page 300, first 2 full paragraphs and table 2).

Claims 74 & 88: Liers et al. teach increasing the palatability of the bait by possibly adding rice (a cereal grain, hence an attractant) to the bait (p 303, last full paragraph).

Claims 75 & 89: Liers et al. teach using a solvent (acetone or propylene glycol) in the composition (p 300, third full paragraph and table 2).

Claims 92-113: Liers et al. teach a method of killing fleas and their host rats by providing a bait composition comprising 0.005% (50 ppm) fipronil and 0.005% (50 ppm) bromadiolone (a rodenticide) (Materials and Methods section, especially page 300 including tables 2 & 3, also Discussion section, Figure 2).

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

The difference between the teachings Liers et al. and the instant claims is that Liers et al. uses bromadiolone as the rodenticide, whereas the claims select the rodenticide from the group consisting of brodifacoum, difethialone, flocoumafen and mixtures thereof. This deficiency in the teachings of Liers et al. is cured by the teachings of Petterino et al.

Petterino et al. teach bromadiolone, brodifacoum, difethialone, and flocoumafen are all useful as second-generation, anticoagulant rodenticides (p353, 3rd paragraph). Petterino et al. also teach that bromadiolone has a higher LD_{50} against rodents (less effective as a rodenticide) than brodifacoum, difethialone, and flocoumafen (p355-357, tables 4, 5 ,7, & 8).

The difference between the teachings Liers et al. and the instant claims is that Liers et al. use the bait composition in a method to kill fleas not ticks. This deficiency in the teachings of Liers et al. is cured by the teachings of Jeannin et al.

Jeannin et al. teaches, as a whole, methods for controlling ectoparasites with fipronil. Jeannin et al. specifically teaches that fipronil is useful for killing both ticks and fleas (column 4, lines 10-15).

Finding of *prima facie* obviousness
Rationale and Motivation (MPEP 2142-2143)

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the claimed invention was made to substitute brodifacoum, difethialone, or flocoumafen for bromadiolone in the bait and method of Liers et al. as well as using the bait and method against both fleas and ticks and produce the instant invention, because

brodifacoum, difethialone, or flocoumafen are art-recognized as more effective rodenticides than bromadiolone and fipronil is art-recognized as both an insecticide and an acaracide. The skilled artisan would have been motivated to use brodifacoum, difethialone, or flocoumafen instead of bromadiolone because the Petterino et al. teach that brodifacoum, difethialone, and flocoumafen are more potent rodenticides. The skilled artisan would have been motivated to use the bait composition taught by Liers et al. against ticks as well as fleas because Jeannin et al. teach that fipronil is effective against both fleas and ticks.

All the critical elements of the instant claims are disclosed. The amounts and proportions of each ingredient are result-effective parameters chosen to obtain the desired effects. It would be obvious to vary amounts of the ingredients to optimize the effect desired, depending upon the particular host species and application method of interest, reduction of toxicity, cost minimization, enhanced, and prolonged, or synergistic effects. Applicant has not provided any objective evidence of criticality, non-obvious or unexpected results that the administration of the particular ingredients' or concentrations provides any greater or different level of prior art expectation as claimed, and the use of ingredient for the functionality for which they are known to be used is not basis for patentability. The instant invention provides well-known old art-recognized compounds, with well-known art-recognized effects, applied by well-known art-recognized methods to achieve improved control as is well-known in the art.

In light of the forgoing discussion, one of ordinary skill in the art would have concluded that the subject matter defined by the instant claims would have been

obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in using brodifacoum, difethialone, or flocoumafen as a rodenticide in the compositions and methods taught and producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Response to Arguments

Applicant's arguments filed December 10, 2009, have been fully considered but they are not persuasive. Applicant has argued against each reference cited that it does not teach the invention. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The principle of law states that: "[W]hen the question is whether a patent claiming the combination of elements of prior art is obvious," the answer depends on "whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). Clearly here every element is performing its established function, and the expected result remains the same; a combination rodenticide/insecticide composition is made in

the absence of evidence to the contrary. No unexpected results have been presented. Applicant's arguments are not persuasive, and the rejection under 35 U.S.C. §103(a) is maintained

Conclusion

Claims 64-113 are rejected. No claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lea whose telephone number is (571) 270-5870. The examiner can normally be reached on Mon-Fri 8:00-4:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne "Bonnie" Eyler can be reached on (571)272-0871. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CRL

/Ernst V Arnold/
Primary Examiner, Art Unit 1616